

REMARKS

The Office Action mailed June 20, 2007 rejected claims 1-36 under 35 U.S.C. § 103(a). Applicants respectfully respond to this Office Action.

I. Claims 1, 11, 18, 28 and 35-36 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1, 11, 18, 28 and 35-36 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz (U.S. Patent Application Publication No. 2003/0123406) in view of Chen ("Adaptive Channel Estimation and Dedicated Pilot Power Adjustment Based on the Fading Rate Measurement for a Pilot Aided CDMA System," IEEE Journal on Selected Areas in Communications, vol. 19, no. 1, January 2001). This rejection is respectfully traversed.

The factual inquiries that are relevant in the determination of obviousness are determining the scope and contents of the prior art, ascertaining the differences between the prior art and the claims in issue, resolving the level of ordinary skill in the art, and evaluating evidence of secondary consideration. KSR Int'l Co. v. Teleflex Inc., 550 U.S. ___, 2007 U.S. LEXIS 4745, at **4-5 (2007) (citing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966)). To establish a *prima facie* case of obviousness, the prior art references "must teach or suggest all the claim limitations." M.P.E.P. § 2142. Moreover, the analysis in support of an obviousness rejection "should be made explicit." KSR, 2007 U.S. LEXIS 4745, at **37. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id. (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Claim 1 has been amended so that it now recites "means for using the quality metric to adaptively allocate a fixed amount of power between the traffic signal and the dedicated reference signal." This amendment is supported by at least paragraph [0043] of Applicants' specification.

The Office Action correctly acknowledges that Yavuz in view of Chen as well as Yavuz in view of Jepsen does not teach or suggest "adaptively allocat[ing] a resource between the traffic signal and the dedicated reference signal," "wherein the resource comprises power." See Office Action, pages 6, 23. The Office Action asserts that Haim teaches "wherein the resource

comprises power.” See id. However, Haim does not teach or suggest “adaptively allocat[ing] a fixed amount of power between the traffic signal and the dedicated reference signal,” as recited in amended claim 1.

Haim relates generally to a “system and a method of controlling transmitter power in a wireless communication system.” Haim, abstract. Haim describes a method where “[t]he transmission power is adjusted on a relatively slow basis based on quality of data received by a receiver of the transmitted data.” Id. Specifically, the “transmitter transmission power...is adjusted by applying a scale factor...based on quality of data received by a receiver.” Id., par. [0011]. This “scale factor” is computed “based on the computed path loss, the received measured interference power data, the target SIR [signal to interference ratio] and $\sqrt{(N(t)/M(t))}$ [the ratio of user data rate to transmission signal data rate].” Id., par. [0013]. Haim also states that “the transmitting station’s transmitter 51 sets its power based upon high-rate ‘step-up’ and ‘step-down’ commands generated by the remote receiving station 70.” Id., par. [0044].

Haim does not teach or suggest “adaptively allocat[ing] a fixed amount of power between the traffic signal and the dedicated reference signal,” as recited in amended claim 1. In fact, Haim does not teach or suggest “allocat[ing] a fixed amount of power” between any two signals. Haim does not teach or suggest that the amount of transmitter transmission power is “fixed.” As indicated above, Haim refers to “adjust[ing]” the transmission power. Haim, par. [0011]. Haim also refers to the use of “high-rate ‘step-up’ and ‘step-down’ commands” for adjusting the transmission power. Id., par. [0044]. Both of these statements indicate that the amount of transmission power varies in the system of Haim. This is in direct contrast to claim 1, which recites that the amount of power is “fixed.”

In addition, Haim also does not teach or suggest the allocation of any resource “between the traffic signal and the dedicated reference signal,” as recited in amended claim 1. Haim is not at all related to resource allocation between a “traffic signal” and a “dedicated reference signal.”

In view of the foregoing, Applicants respectfully submit that claim 1 is allowable. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Claims 11, 18, 28, 35, and 36 have been amended similarly to claim 1. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn for at least the same reasons as those presented above in relation to claim 1.

II. Claims 2 and 19 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected 2 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Chen and further in view of Haim (U.S. Patent Application Publication No. 2002/0102944). Claims 2 and 19 have been canceled. Accordingly, Applicants respectfully request that the rejection of claims 2 and 19 be withdrawn.

III. Claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Chen and further in view of Farlow (PCT application no. WO 02/13448 A2). This rejection is respectfully traversed.

As discussed above, Applicants respectfully submit that claim 1 is allowable. Claims 7 and 8 depend from claim 1. Claims 14 and 15 depend from claim 11, which includes limitations that are similar to those argued above in relation to claim 1. Claims 24 and 25 depend from claim 18, which also includes limitations that are similar to those argued above in relation to claim 1. Claims 31, 32, and 34 depend from claim 28, which also includes limitations that are similar to those argued above in relation to claim 1. Accordingly, Applicants respectfully request that the rejection of claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

IV. Claims 9, 10, 16, 17, 26, 27, 33 and 34 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 9, 10, 16, 17, 26, 27, 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view Chen and further in view of Frank (U.S. Patent No. 6,904,081). This rejection is respectfully traversed.

As discussed above, Applicants respectfully submit that claim 1 is allowable. Claims 9 and 10 depend from claim 1. Claims 16 and 17 depend from claim 11, which includes limitations that are similar to those argued above in relation to claim 1. Claims 26 and 27

depend from claim 18, which also includes limitations that are similar to those argued above in relation to claim 1. Claims 33 and 34 depend from claim 28, which also includes limitations that are similar to those argued above in relation to claim 1. Accordingly, Applicants respectfully request that the rejection of claims 9, 10, 16, 17, 26, 27, 33 and 34 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

IV. Claims 1, 3-6, 11-13, 18, 20-23, 28-30, 35 and 36 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1, 3-6, 11-13, 18, 20-23, 28-30, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Jepsen (U.S. Patent No. 6,724,815). This rejection is respectfully traversed.

As indicated above, claim 1 has been amended so that it now recites “means for using the quality metric to adaptively allocate a fixed amount of power between the traffic signal and the dedicated reference signal.” The Office Action correctly acknowledges that Yavuz in view of Jepsen does not teach or suggest “adaptively allocat[ing] a resource between the traffic signal and the dedicated reference signal,” “wherein the resource comprises power.” See Office Action, page 23. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Claims 11, 18, 28, 35, and 36 have been amended similarly to claim 1. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn for at least the same reasons as those presented above in relation to claim 1.

Claims 4-6 depend either directly or indirectly from claim 1. Claims 21-23 depend either directly or indirectly from claim 18, which includes limitations that are similar to those argued above in relation to claim 1. Claims 29-30 depend from claim 28, which includes limitations that are similar to those argued above in relation to claim 1. Accordingly, Applicants respectfully request that the rejection of claims 4-6, 21-23, and 29-30 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

Claims 3 and 20 have been canceled. Accordingly, Applicants respectfully request that the rejection of claims 3 and 20 be withdrawn.

V. Claims 2 and 19 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 2 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Jepsen and further in view of Haim. Claims 2 and 19 have been canceled. Accordingly, Applicants respectfully request that this rejection be withdrawn.

VI. Claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Jepsen and further in view of Farlow. This rejection is respectfully traversed.

As discussed above, Applicants respectfully submit that claim 1 is allowable. Claims 7 and 8 depend from claim 1. Claims 14 and 15 depend from claim 11, which includes limitations that are similar to those argued above in relation to claim 1. Claims 24 and 25 depend from claim 18, which also includes limitations that are similar to those argued above in relation to claim 1. Claims 31, 32, and 34 depend from claim 28, which also includes limitations that are similar to those argued above in relation to claim 1. Accordingly, Applicants respectfully request that the rejection of claims 7, 8, 14, 15, 24, 25, 31, 32 and 34 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

VII. Claims 9, 10, 16, 17, 26, 27, 33 and 34 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 9, 10, 16, 17, 26, 27, 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Yavuz in view of Jepsen and further in view of Frank. This rejection is respectfully traversed.

As discussed above, Applicants respectfully submit that claim 1 is allowable. Claims 9 and 10 depend from claim 1. Claims 16 and 17 depend from claim 11, which includes limitations that are similar to those argued above in relation to claim 1. Claims 26 and 27 depend from claim 18, which also includes limitations that are similar to those argued above in relation to claim 1. Claims 33 and 34 depend from claim 28, which also includes limitations that are similar to those argued above in relation to claim 1. Accordingly, Applicants respectfully request that the rejection of claims 9, 10, 16, 17, 26, 27, 33 and 34 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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